IDEALS 98
USER'S GUIDE

INPUT AND DATA EDITING FOR
ACADEMIC LIBRARY STATISTICS (IDEALS)

Version 5.0

10/30/98

**THE NATIONAL CENTER FOR EDUCATION
STATISTICS (NCES)**

**THE U. S. NATIONAL COMMISSION ON LIBRARIES
AND INFORMATION SCIENCE (NCLIS)**

THE BUREAU OF THE CENSUS

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[1] Appendix G is not contained in the Internet and disk versions of this manual. Please refer to the hard paper copy for Appendix G, or contact the Bureau of the Census for a fax copy of the survey form.

1 INTRODUCTION

The U. S. Department of Education's National Center for Education Statistics (NCES), established in 1965, was given the responsibility for the collection, analysis and reporting of educational statistics across the United States. Today's academic libraries satisfy major needs in the education of our nation's students. The need for the usage of accurate, timely and meaningful data on our nation's academic libraries has been and will continue to be important in our ability to serve the pressing needs by students of higher education in the U. S.

NCES and the Census Bureau have worked to develop an easy-to-use, PC software tool for the editing and reporting of academic library data. The software, called Input and Data Editing for Academic Library Statistics (IDEALS), uses IMPS, a generalized survey processing system developed by the Census Bureau. Version 5.0 of IDEALS accepts several different ASCII formats as input. These formats can be created by exporting data from various packages such as dBASE, Lotus 1-2-3, MS-Access, etc. Navigation through IDEALS is accomplished through menus and pop-up windows. The menus give one-key access to all IDEALS functions.

1.1 Contacts

The following persons can be contacted for information on the Academic Library survey. Jeffrey Williams and Pat Garner can be contacted for informational content and general software issues; Kathy Chamberlain should be contacted for any technical computer or software problems with the IDEALS software. If you prefer to explain your problem in writing and have someone call you about it, send E-mail to *aclib@census.gov*

Agency	Person	Telephone/Fax	E-mail
NCES	Jeffrey Williams	202-219-1362 202-219-1679(Fax)	Jeffrey_Williams@ed.gov
Census Bureau	Pat Garner	1-800-451-6235 301-457-1542(Fax)	aclib@census.gov
Census Bureau	Kathy Chamberlain	301-457-1590 (Fax same as above)	aclib@census.gov

1.2 Changes in the Survey Form and IDEALS Software

There were a number of changes to the form since the 1996 questionnaire. Listed below are the changes to the survey form, and to the IDEALS software and reporting specifications.

On the cover sheet, the library definition was reformatted as a checklist. Also, the possibilities of shared libraries, your library reporting data for another library, or your library data reported by another library were clarified in connection with related changes on page 4.

In part B, library staff, separate counts are now asked for librarians and for other professional staff.

In part C, library expenditures, the title was changed to reflect the fact that in many academic libraries the term "operating expenditures" does not cover expenditures for staff or for information resources. Expenditures for "operating" (lines 20-23) are grouped under that subheading. Expenditures for "books, serial backfiles, and other materials" are reported in two categories: paper and microform, and electronic. All expenditures for current serials are now reported on two lines: paper and microform, and electronic. Expenditures for search services and current serials are reported together.

In part D, library collections, this section was reduced from 18 lines to 7 lines. Deleted items include manuscripts and archives (linear feet), computer files, and other library materials. Cartographic materials, graphic materials, sound recordings, and film and video materials are now combined under Audiovisual materials. The simplification involves two kinds of changes. Counts are now requested for selected types of material only, rather than for all. Also, for each type, respondents are asked to provide a physical count or a bibliographical count but not both.

In part G, electronic services, video/desktop conferencing, satellite broadcasting, scanning equipment and services for distance education students questions were added to this part.

The IDEALS software gives you the ability to calculate totals (see section 4.9.1).

The IDEALS software gives you the ability to export as a comma delimited file or as a database (.dbf) file (see sections 4.9.7 and 4.9.8).

The Current/Prior Year listing was eliminated from the IDEALS software.

The interactive edits were eliminated, leaving only batch edits in the IDEALS software.

The IDEALS software allows you to import a single library in the IDEALS format. Contact the Census Bureau for further information.

Many of the edit range checks were eliminated in the IDEALS software.

2 SETUP REQUIREMENTS

2.1 IDEALS Package Contents

The IDEALS software can be obtained from diskette, or can be downloaded using a Web browser from the Census Bureau's Web site. For more details, see 'Installing IDEALS' below.

The IDEALS package comes with a diskette (if requested), this User's Guide, and a return envelope. The diskette, marked "IDEALS Version 5.0", holds the necessary IDEALS program, and the universe file of expected libraries in your state with two 1996 data items. The 1996 data items are used for current/prior year editing. The diskette is 3½ " DS/HD (1.44MB). When downloading the IDEALS software from the Web site, files are downloaded in two distinct groups, with contents similar to the diskette.

2.2 Computer System Requirements

IDEALS requires an IBM or compatible computer with:

•   A minimum of 540 kilobytes (KB) of available (conventional) memory.

•   MS-DOS version 5.0 or higher.

•   A 3½ " high density diskette drive if installing from diskette, or a Web browser and connection if downloading IDEALS from the Web.

•   A hard disk with at least 4 MB of free disk space for program and data files. The amount used will vary depending on the size of your data file.

•   An HP Series II Laser printer or compatible laser printer or an Epson compatible, wide carriage (i. e. 130 cc), dot matrix, to print reports.

•   A color graphics card and color monitor are preferred, but are not required.

•   A minimum of 30 DOS file handles and 20 buffers. Be sure that the commands "FILES=25" (or more) and "BUFFERS=20 (or more) are in your CONFIG.SYS file which can normally be found in the root directory of your hard disk. For Windows 95, these commands are not necessary.

The IDEALS software works best if run strictly through DOS. If your system is using Windows 3.1, close out windows (closing the Program Manager) and go to the DOS

prompt. The software runs faster and with fewer problems when run without Windows. For Windows 95 users, run through the DOS window.

2.3 User Requirements

The IDEALS software is user-friendly and does not require an advanced level of personal computer expertise. However, a fundamental understanding of personal computers, their usage and basic DOS skills is considered mandatory.

3 INSTALLING AND USING IDEALS

3.1 Installing IDEALS

IDEALS must be installed on a personal computer with a hard disk for it to function properly. If you do not have a hard disk, or are unsure of your system setup, please consult your local technical support staff, or contact one of the Census Bureau staff listed earlier in this manual. In addition, Appendix F contains a "Glossary of Terms" which may also prove helpful.

In preparation for installing IDEALS, follow these steps:

Remove any earlier versions of IDEALS that might be on your computer because the current version is based on a totally new software. Remove the old IDEALS directory by typing at the DOS prompt:

cd   \IDEALS40

Making sure the current directory is the IDEALS40 directory, type

del   *.*

DOS will respond with "Are you sure?". Type <Y> to confirm the deletion(s). Then remove the IDEALS40 directory by typing the following:

**cd **

rd IDEALS40

3.1.1. Using the Internet to Obtain IDEALS Software

IDEALS is available for downloading from the Internet, through either FTP (file transfer protocol) or the Census Bureau's Web site. The IDEALS package that was shipped to states, included a diskette only if requested. If you requested a diskette but have access to a Web browser, the Internet availability of the IDEALS software and universe file could prove useful if you have a problem with the diskette, or if changes are made to the software.

If you have an e-mail address that we are unaware of, please send a note to *aclib@census.gov*. This way, you will be notified if significant changes are made to the software.

Before downloading the software, create a directory for IDEALS. At C: prompt,

mkdir   IDEALS98   (or whatever directory name you prefer)

To download the software using a Web browser, you should start at

http://www.census.gov/govs/www/tools.html

and proceed to the *Academic Libraries* page. Be sure to read the *instructions* for how to download and install the software. These are summarized below. The *announcements* will tell you the release date of the software and universe file, and give information on recent modifications.

To download the software through FTP, as opposed to a Web browser, you must first log in as "*anonymous*" to the Census server

ftp.census.gov

using your Internet address as the password. You must then change to the subdirectory *pub/govs/tools/aclib.* You should download the software file *IDEALS98.EXE* and the appropriate universe file, which will have a name similar to *UNIVxx.EXE,* where *xx* is your state abbreviation. Both are binary files, so if you need to change the setting on your FTP interface to binary, do so. The *instructions* and *announcements* files also will be available at this location. Download these two *.EXE* files into the IDEALS98 directory.

Run the two *.EXE* files, which will expand into all the components of the IDEALS98 system and the universe file. You can do this through Windows Explorer. Proceed with the instructions below for using IDEALS98.

3.1.2 Installing IDEALS from diskette

To install IDEALS from the diskette:

1.	Insert your "IDEALS Version 5.0" DISK into drive A or B and in Windows Explorer click on

SET UP

You will be asked which hard drive and which directory to use for the software. **Note**: If you are using Windows 95 and have 2 hard disk drives available for installation of IDEALS, there might be some confusion as to which drive letter is highlighted for selection during the installation process. <u>The highlighted bar has dark letters on a light background</u>. In Windows 3.1 and in DOS without Windows, the highlight bar blinks, so there is no confusion as to which one to select.

This expands the software files so they can be used. If adequate disk space is available, the software should be operational after this step.

2.   Copy the universe file UNIV.TXT from your "IDEALS Version 5.0" DISK to the same directory you used for the software..

3.2 Using IDEALS

3.2.1 Conventions in this Manual

Queries and prompts will appear with key letters bracketed by "<" and ">". For instance, a query such as: "Accept change? <Y>/<N>" indicates that the only valid options are to hit either the "Y" or "N" keys on the keyboard.

Scroll bars and windows are used in several places in the software to prompt the user to select a file or table. Typically, a window will pop-up with one or more choices. The current selection bar, by default, will be highlighted in reverse video. Use the <Up Arrow> and <Dn Arrow> keys to move from one selection to another. Press <Enter> to finalize your selection.

3.2.2 Overview on Using IDEALS

In general, follow these steps in using IDEALS:

1.   Obtain a list of UNITIDs and library names from 1998, if desired. This is the 'universe' of libraries that you are expected to report, plus any new ones that have been added. This step is optional. If you would find such a list useful, choose '5- Create Summary Reports' then '1- Library Listing'. The list will then appear on the screen. Press <Esc> to exit from View mode, then choose 'Print' from the menu if you want to print it.

2.   Select method for entering data: importing or keying.

Select **'1 - Initialize and Import Data'** to initialize the data file with an ASCII file you wish to import. IDEALS will look for a file called IMPORT.TXT in the IDEALS directory. It will append to the imported file those libraries from the 1998 universe whose UNITIDs do not appear on your imported file.   See section on importing data for formats available for the import file.

Select '**2 - Initialize for Data Entry' --**Initializes the data file with the 1998 library names and UNITIDs for direct data entry from the forms.

3.   Select **'3 - Key/Correct/Review/Add Data'** to key in form data, make corrections to previously entered data, review imported and keyed data, and add new libraries to the data file. To return to the main menu, arrow to **End batch** or type '**E**' and press <Enter>. Answer **'N'** to the question 'Work with another batch?'

4.   Select **'4 - Run Edit Checks '** to edit check the data. Two edit programs should be accessed: 1) form edits which check for inconsistencies in current year data, and 2) current year/prior year edits which compare the 1998 data to the 1996 data. The one method for performing the edit programs is batch. Batch edits provide reports about all the errors in the file.

5.   Select **'5 - Create Summary Reports'** at any time to create a library listing, a listing of closed libraries, or a summary report of selected items from the form. You can view or print the report you last created using **'6 - View'** and '**7 - Print**'.

6.   When you are satisfied with the data, select **'8 - Prepare file for Census"** to save the file to the hard drive. Copy the file to diskette, put the diskette in a diskette mailer, and return to the Census Bureau. Alternatively, you can send the text file ACLIB.TXT to the Census Bureau (aclib@census.gov) as an attachment to an Internet message. ACLIB.TXT is created when you "**Prepare file for Census**". See instructions for submitting data. If you want to save a copy of your forms as a text file, choose '**9 - Utilities'** then '**2 - Create Copies of your Forms'**. You can print and view these forms using the Print and View options.

These options and others are described in detail in the pages that follow.

3.2.3 Starting and Exiting the IDEALS Software

You may start the IDEALS software any of the following ways:

1)   In Windows Explorer, click on IDEALS.bat in the directory where you installed the software.
2)   Create a shortcut for IDEALS.bat and click on the shortcut.
3)   Go to the DOS prompt, change to the directory where the IDEALS software is installed, and type 'IDEALS'.

The Main Menu should appear, showing 9 options. Your first time in the system, you will need to select the option that fits your method of entering data - 'Initialize and Import Data' or 'Initialize for Data Entry. The <Esc> key can be pressed at any time to cancel current processing and to move to previous screens.

To exit from IDEALS, return to the main menu then press <Esc>. A question box appears that asks "Exit Menu?". Use the arrow key to choose Yes or No and press <Enter>.

3.2.4 Current Year Information

For a listing of the UNITIDs and school names contained on the current year data file, select **5- Create Summary Reports**, then **1) Library Listing**. This list

shows all the libraries that were imported or keyed, plus any that were on the current year (1998) file that did not have a matching UNITID on the imported file. If the "Library listing" is performed prior to any data entry or importing, the listing will show only the 1998 libraries, i.e. those libraries for which the Census Bureau expects data.

4 IDEALS MAIN MENU AND FUNCTIONS

The main menu's options provide direct access to all the major functions within IDEALS. IDEALS was designed with fewer menu levels in order to minimize keystrokes and speed productivity. Menu choices are sequenced in the anticipated order of usage, from importing, to data entry, review, editing, creating reports, and saving of the current year's data.

4.1 Initialize and Import Data

If you are importing an ASCII file, as opposed to keying forms directly into IDEALS, you will need to copy your import file to the IDEALS98 directory with the name IMPORT.TXT. Make sure your file is in the expected format. IDEALS supports the import of a flat ASCII file and a comma/quote delimited file as described in Appendix B. Most database, spreadsheet, and word processing software have the capability to export data to an ASCII flat file format or a comma delimited format.   Exit from the IDEALS menu, and copy your file to IMPORT.TXT in the IDEALS98 directory.

After the file is copied, you can start the IDEALS system as described above. Choosing '**1 -Initialize and Import Data**' from the Main Menu will bring you to the data import options. If you are importing data, but IDEALS cannot find IMPORT.TXT, it will warn you by saying, "Cannot find IMPORT.TXT".

After importing the file, look at some of the data using '**3– Key/Correct/Review/Add Data**' to see if it appears as it should. In particular, the FTE fields in Part B should be examined to ensure that there are no decimal problems. These fields should be displayed on the screen as having a decimal point with two decimal digits. Also, the integer fields beginning in Part C should not have any decimal points. If there are any decimal problems in the data, there is a utility program which will probably correct the problems. See Utilities option below for how to fix decimal problems.

Some important tips:

•	It is very important to use the UNITID shown on the cover of the questionnaire below the barcode in the address box.

•	The import file must be an ASCII flat file or comma delimited file. If the file contains decimal points, they need to be removed, but this can be done after importing using a utility program in the IDEALS system.

- The import file should be named IMPORT.TXT and should be in the IDEALS98 directory. The importing program will be looking for this file name.

- Data element **names** need not match, but the **size** and **sequence** or **order** of the data elements **must** be per IDEALS requirements for a fixed width file (see import layout specifications in Appendix B). For comma/quote delimited files, the size of the data elements is not a factor, but the **sequence** or **order** of the data elements **must** be per IDEALS requirements (see import layout specifications in Appendix B). Use double-quotes to delimit text fields and a comma for the field separator. For example, in Microsoft Excel you would save the spreadsheet as a .CSV file to convert it into a comma delimited file.

- The import process begins with initializing the data file with the UNITID and name of the school from the 1998 file which was supplied with the installation diskette. This file is then matched to the import file. Any UNITIDs on the import file but not on the 1998 file will be placed on the IDEALS data file. Likewise, if a UNITID appears on the 1998 file but not the import file, it will be placed on the IDEALS data file. Institution names from the 1998 data will be used. **Please do not delete any UNITIDs from the IDEALS data file. Libraries can be marked as closed if desired.**

- No negative values are allowed in the 1998 data. If the form has blank cells, then leave them blank in the data. If the form has U/A or N/A for unavailable or not available, leave the cell blank. DO NOT USE '0' to symbolize unavailable; an entry of '0' means zero in this software.

- The import process does **not** modify or change the **original** import data file unless the import data file contains blank UNITIDs. In this case, a dummy UNITID is generated beginning with 999000, 999001, etc.

- The import layout does not allow for the institution's name for shared libraries, only their UNITIDs. You may want to key the name in during your review of the data file.

- The 'current' data file is the data file called ACLIB.BCH. It is a text file, with 8 records (parts) per form, A-G and R. When you "**Prepare file for Census**" the file is converted to the format described in Appendix B and is called ACLIB.TXT.

4.1.1 Fixed format, one record per questionnaire

IDEALS imports ASCII flat files where the data fields are fixed widths, with one record per questionnaire. Some of the major spreadsheets and database software packages are able to export in this fashion.

The IDEALS user can import an ASCII file which was exported from dBASE or another database and is compatible with the IDEALS file specifications in Appendix B. For best results, please observe the following:

- Prepare the spreadsheet file by removing all 1-2-3 headers, macros, formulas and miscellaneous cell entries.
- Use only numeric data in numeric data elements. So do **not** use 1-2-3 labels such as ', ", ^ or \ for numeric entries.

- Use the **/** **F**ile **X**tract command to extract just the data portion of your spreadsheet.

- Be sure that the file is saved as a print or text file before importing data to IDEALS.

- Copy or rename the exported text file to *IMPORT.TXT.*

4.1.2 Comma delimited, one record per questionnaire

IDEALS can import a comma/quote delimited ASCII file. For comma/quote delimited files, the size of the data elements is not a factor, but the **sequence** or **order** of the data elements **must** be per IDEALS requirements (see import layout specifications in Appendix B).

To prepare your file to be imported into the IDEALS software:

1. Convert or export the file to a comma/quote delimited file. Use double-quotes to delimit text fields and a comma for the field separator. For example, in Microsoft Excel you would save the spreadsheet as a .CSV file to convert it into a comma delimited file.

2. Copy the delimited file to *IMPORT.TXT* and run the import utility for comma delimited files.

3. Your file is now ready to be processed. Since your file was generated from a spreadsheet or database, you may need to use the utility, "Fix decimal problems", if the FTE fields appear to have too many decimal places.

4.2 Initialize for Data Entry

Use this option if you want to key rather than import your data into IDEALS. It initializes the IDEALS file with UNITIDs and names of institutions from the 1998 file. Libraries will be in institution name order. After you run this step, choose **Key/Correct/Review/Add Data** to key your data into the blank fields, pressing <F7> to save each library after the last screen (Remarks) is keyed.

NOTE: Do not use **'Initialize for Data Entry'** if you are importing data.

4.3 Key/Correct/Review/Add Data

This option is the data entry and record maintenance portion of IDEALS. The 1998 academic library data should be keyed and/or changed using these functions. Within this function are

Key/Correct/Review Data, and

Add New Libraries

They employ the same interface. The pages or screens show the UNITID, and data fields for identifying and control information of the sort found at the beginning of the questionnaire, parts A and B of the questionnaire, parts C through G and a remarks section, respectively.

Part B contains information about full-time equivalent staff, which is carried at two decimal places. Although a decimal point shows on the screen, it is not (or should not be!) on the file. When keying data into these fields, a decimal point should be keyed at the appropriate place so the system knows where to place the integer and decimal part of the number. For example, a number of 12.45 should be keyed as shown; otherwise the system assumes (and will show) 1245.00. Within the IDEALS file, an ASCII text file, this field will be carried as a 6-digit field, 001245. The two decimal places are 'implied'.

4.3.1 Data Keying and Review Interface

4.3.1.1 Getting In and Out of Data Keying/Review

After choosing '**Key/Correct/Review Data**' or '**Add New Libraries**', a screen saying CENTRY may appear, depending on your computer setup. At the bottom of the CENTRY screen is an empty box where you should enter your initials then press <Enter> to continue. Once the CENTRY screen is passed, a message will appear saying "Creating BOP file". No action is necessary; wait until the .BOP file is created. The .BOP file is an index file which is automatically created each time data entry and review mode is activated. The user need not worry about creating or saving this file. After this file is created, you can proceed with data entry or review by pressing <PgDn>, or in the case of '**Add New Libraries**', keying a UNITID.

When you want to leave data entry/review mode, press <Esc> to obtain a menu bar at the top of the screen. If you press <Esc> before saving changes you have made to a library, you will be asked if you want to cancel the changes. If you do not want to

cancel, answer N or <Esc>, and press <F7> to save changes. Press <Esc> to return to the main menu. When you see a horizontal menu bar, right-arrow to "End Batch" or type **<E>**. You will be asked the question "Work with another batch?" Answer **<N>**.

4.3.1.2 Keyboard Keys

Use the <Pg Up> and <Pg Dn> keys to advance from one data screen to the next within a library. After reaching the final screen, the Remarks section, pressing <Pg Dn> will bring up the next UNITID. Within a screen, you may move forward through fields using the <Enter> key and backwards using the left arrow key.   Use <Ctrl> + <PgUp> and <Ctrl> + <PgDn> to move between libraries. See below for more details on keyboard action and function keys. Striking <Esc> at any point will revert to the previous menu and eventually back to the IDEALS Main Menu.

At the top of all screens, an informational section appears in black. In the upper right hand corner are two fields that relate to your review of IDEALS - 'Status' field which provides information such as ENTERED or CHANGED, on the data for the current UNITID; and 'Quest' which gives the number of the current UNITID in the file i.e. a UNITID with a 10 in Quest field would be 10th library in the data file. Both of these features allow you to see at a glance if form data has been changed and where it is in relation to the entire file.

Valid entries for numeric (quantitative) and UNITID fields are numbers only. After you key a number and press <Enter>, the system will right-justify and zero-fill the data field. For example, key 62 and press <Enter>. If it is a 10-digit field, the number will appear as 0000000062. If it is an FTE field, the number will appear as 0062.00. The following responses are acceptable to IDEALS:

0
: Enter '0' if you have zero or none of this item. If the information is unavailable see 'blank' entry below.

number>0
: Any positive number or any character, depending on the data element. Enter any alphabetic/numeric combination that is appropriate for data elements requiring identifying information. Enter a positive number for data elements that call for a numeric response.

blank
: A blank signifies that the data is unavailable. Estimates should be used if exact data are not available. Try not to leave any data element blank. If an item is left blank the data will be imputed based on data provided by schools similar in nature.

IDEALS allows the use of the following keyboard keys during data entry or review of data:

<Esc>	<Esc> can be used to undo an action or restore the previous screen. <Esc> takes you back one screen each time it's pressed. Answer Yes or No to any questions.
<Enter>	Accepts data for the current data element and moves forward to the next data field.
<Arrow keys>	Allows movement forward, backwards, up or down between the data elements, one element at a time. The right and left arrow keys allow movement within alphanumeric fields. To move to the next field, use the <ENTER> key. To move to the previous field from an alphanumeric field, press <ENTER>, then left arrow 2 times.
. <PgUp>	When applicable, accepts data for the current data element and moves backward one page or screen to the previous screen.
<PgDn>	Moves forward one page or screen.
<Ctrl+PgDn>	Moves to the next UNITID in the file.
</>	Moves forward one page or screen, similar to PgDn.

4.3.1.3 Function Keys

The Function keys, usually found to the far left or along the top of the keyboard, are marked "F1", "F2", etc. IDEALS uses the following function keys in the keying or review of data.

<F1>Help	Invokes detailed on-line help. In addition to the data entry/review mode of IDEALS, <F1> is available from some of the other menu choices in IDEALS. Where applicable, each menu option has it own help information. The main screen 'help' gives information about the various options on the main menu.
<F2> Accept	Used to override a data entry check. If an entry falls outside of the prescribed range for a particular field, a warning box will appear stating that the entry is out of range, press <F2> to force the out-of-range value. If an entry is correct as keyed and falls outside the range use this key. The entry will appear as a red blinking image but will not affect the data file.

<F3> Add	Used on the UNITID screen, it allows you to add a new library before the library whose UNITID is currently showing.
<F6> Search	Used on the UNITID screen to search for a particular UNITID. Pressing <F6> brings up a blank UNITID field. Type in the desired UNITID and press <Enter>. A message box will appear at the top of the screen relating the messages of "Looking for questionnaire" and "Questionnaire is found". Once the UNITID is found you can access the data screens by pressing <PgDn>.
<F7>Save Record	Saves changes made to a library's data. When interactive editing is running, it runs the edits on the current library prior to saving, and shows any error messages.
<F8>Edit	This key is available only in the interactive editing menus. It runs the edits on the libraries' data beginning with the library currently showing on the screen and stopping when it finds a library with any errors. Use <F8> to restart the edit process after changes have been made.
<F10>Edit Messages	This key is available only in the interactive editing menus. Use it to restore the edit message(s) for the current library. These messages disappear as you change screens. <F10> can be used on any screen of the questionnaire.

4.3.1.4 Out-of-Range Values and Blinking Red

IDEALS incorporates error warning schemes during keyboard data entry. Warnings alert the user to out-of-range errors, based on the established criteria listed in Appendix C. If an invalid entry is being keyed directly into IDEALS, this error warning appears and the entry flashes in red. You can correct (re-key) the entry or force (override) the entry using <F2>. If the out-of-range entry is forced, it will continue to blink, but this will not affect the contents of the data file.

If imported data have values outside the expected ranges, or have alphabetic characters where numerics are expected, the field will blink red. Such fields should be corrected if the data is truly invalid. However the blinking red does not adversely affect the data file.

4.3.1.5 Remarks

The remarks section is part of each UNITID questionnaire form. If a questionnaire has remarks in the remarks section or on any part of the form and they are pertinent to the data reported, enter them in the Remarks screen. If a remark pertains to a certain line number on the form enter the line number and the remark, i.e. Lnb6, downsizing of staff. If the remarks are longer than the space allowed, please send an e-mail message with the remarks or send a fax of the remarks to Pat Garner (refer to the contact portion of the manual for a listing of e-mail addresses and fax numbers).

4.3.2 Key/Correct/Review Data

This option is used to key data directly into the IDEALS software after initializing for data entry or importing. The user can modify or update an existing 1998 academic library data. When this option is selected, a screen with a window for the first UNITID appears. You may "scroll" through the libraries, by using the <PgUp>, <PgDn>, <Ctrl>+<PgUp>, <Ctrl>+<PgDn> keys. Position to the screen to be modified, then press <Enter> to move the cursor to the field to be modified. Type the change and press <Enter>. When all the desired changes or entries have been made for a library, press F7 to save the library. Answer Y to 'Accept the changes?' Proceed to the next library by pressing <Ctrl>+<PgDn>.

NOTE: There is no need to save the file, as in other data entry or editing systems. This is because only one questionnaire at a time is brought into memory, and therefore you need only save the one you are working with. This also means that if there is a power failure, the most you can lose is the current questionnaire.

4.3.3 Add New Libraries

There are two ways to add a new library. You can add the new libraries to your import file which will automatically include them in your data file. Or, you can add it to the end of the file by accessing Key/Correct/Review/Add, then 'Add New Library'. A blank data entry field for UNITID appears. Key in the new UNITID press <enter> and key in the name of the institution. Follow instructions on the screens. Return to the Key/Correct/review menu. Select Key/Correct/Review, search for the new libraries by pressing <F6> to get a blank UNITID field. Key in the new UNITID then enter data for the entire questionnaire. After completing data entry for a particular data record, press <F7> to save the library data, or <Esc> to abandon any current entries, and return to the IDEALS menus.

4.3.4 Deleting a Library

Do NOT delete any libraries from the file unless you imported or keyed one which should not be included in the file. If a school reported having a library in 1996 but no

longer supports a library, mark the library as closed (CLOSED = Y), and add a short note in the REMARKS section for that UNITID that would explain what happened.

If a school does not respond prior to submission to Census, leave the record blank. The Census Bureau will perform follow-ups on these cases.

If you imported or keyed a library that should not have been included, it can be deleted. Choose the Key/Correct/Review option. Bring up the screen with the library's UNITID, and press <F4>. Answer <Y>es to the question "Delete questionnaire?".

4.3.5 Marking Closed Libraries

The data field of 'closed library' is not a data element on the questionnaire. This was added to allow you to report to the Census Bureau a closing. Libraries can be marked "closed" during data entry or modification of the data file in '**Key/Correct/Review Data**'. Press <Ctrl>+<PgDn> to step through the UNITIDs on the file, and stop at the one to be marked as closed. Press <PgDn> to see the next screen. Press <Enter> several times to position the cursor to the 'Library closed?' field, and press <Y> to make the library as closed. When marking a library as closed, remember to note in the Remarks section any information pertinent to the closed school such as the date it closed, or if it merged with another school. Press <Y> to get to the Remarks section. After keying remarks, press <F7> to save the changes.

To locate a specific library to be marked as closed, you can search for that library's UNITID. Position to any UNITID screen. Press <F6> to blank the UNITID field, then key in the desired UNITID. Mark the library closed in the same manner as described above.

Closed libraries are ones that were open in the past but are now no longer in operation. If a library has closed, mark it as closed. If a school never had a library, do not mark the closed libraries field; leave it blank, but mark the fields for questions a-d on page 1 of the questionnaire and also the fields for Part III on page 4 if you provide financial support to another library.

A listing of closed libraries can be obtained at any time. Choose 'Create Summary reports' then 'Closed library Listing'. Closed libraries are also designated as such in the Library Listing, also available under 'Create Summary Reports'.

4.4 Run Edit Checks

The IDEALS edit checks perform comprehensive error checking according to the criteria listed in Appendix C. The majority of edit checks performed on the Academic Libraries survey are included in this year's IDEALS software package. The edits performed in the IDEALS software may differ slightly from those performed by the Census Bureau's

edit review. It is advisable to include any remarks that relate to the library or data for that library that seem unusual. Remarks will assist the analyst in reviewing the data and may prevent future error resolution phoning.

The one method of editing is batch. Batch editing produces reports about the errors that were found. You can list these reports, then have them handy while you select 'Key/Correct/Review Data' to make corrections to the data. After all errors have been corrected, these reports should be run again, until all errors have been corrected or explained in remarks.

Select '4 -Run Edit Checks ' to perform this function. Edit processes need to be run for both the form edits and the CY/PY edits. Form edits compare totals and ranges, and check for inconsistencies between responses within a library form. CY/PY edits compare the total FTE and total expenditures to those of 1996. Edits performed at the Census Bureau also compare CY/PY for volumes held, salaries, and weekly gate counts and reference transactions.

Like the 1996 version of IDEALS, no separate error file is generated. Erroneous records are on the same file as correct ones.   Remember if any new libraries are added after the data file has been edited, you will need to re-edit the file.
The error/warning check portion alerts the user to several types of errors.

- "Out-of-range" errors such as "Hours of operation per week exceed 168" indicates values entered by the user for a single data element have been determined to be too extreme for that particular data element.

- Relational errors are where two or more data elements are not within an acceptable calculated limit established by NCES. Currently there are none of these type errors on IDEALS. However, Census does make comparisons using the ratio between the FTE and salaries shown in part C. So, checking this out for reasonable answers may catch some out of range relational errors. For example, if 1.00 Librarians are shown in B04 and the salary for librarians shown in C09 is $16,800,000, may signal a problem in the data.

- Arithmetic errors involve numerical summations, for example, totals. IDEALS will automatically calculate a total during the editing process but will not insert the calculated total into the data file. If the reported total and calculated totals do not match, an error message will be displayed in the edit report. Since IDEALS does not automatically insert the generated total, you will need to correct the total or press <F2> to accept the reported total. Please verify that totals are correct before sending data to the Census Bureau.

- Comparisons between parts will be made during the editing of the state data. For example, if an entry is in part C for book expenditures then an

entry should appear in part D, column (1) of line 26 or 27. See Appendix C for a listing of other comparisons.

- This year there will be comparisons between the current year data and prior year data for selected data elements, i.e. total FTE (line 8), and total expenditures (line 24).

NOTE: On the edit reports, the slash character (/) indicates a blank character

4.4.1 Batch Edits

 Batch editing reviews the entire data file then compiles a summary listing of how many cases failed which edit and a listing by UNITID showing the edit errors. See Appendix D for an example of these listings. Batch editing requires less memory and runs fairly quickly.   The disadvantage of batch editing is that you cannot correct errors on the spot, but must print the error listing to have it handy while you correct errors using 'Key/Correct/Review Data'. Both the form and CY/PY edits need to run.

The batch edit reports are automatically presented on the screen using the 'View' program. Press <F1> while viewing the reports to see what options are available. Pressing <Esc> causes you to exit from the View program. You can view the edit reports at any time by choosing 'View' from the main menu, then selecting 'Form Edit Report' or 'CY/PY Edit Report'. The 'View' program only shows the last reports that were created. If you run batch edits, then make corrections to your data, then 'View' an edit report, you will see the earlier version of the edit report which does not reflect the corrections you made. It is important to rerun the batch edits after data corrections are made in order for the report to reflect these corrections.

If you are running batch edits, a summary listing of errors appears. You should review the summary listing to see if any large numbers appear to the left of any error messages. This number is the number of libraries that failed the edit. If many libraries failed any one edit, it is a good idea to correct the error then re-create the edit report. The second part of the edit report, which lists information about each library in error, can be very long when there are many errors. Let's save some trees and not print it if it's long!

4.5 Create Summary Reports

This menu allows summary reports to be created from the data file. Choose the desired report by keying the option number or highlighting the item then pressing <Enter>. The report will appear on the screen. The sequence of libraries is the sequence of the data file that is, usually institution name. If you want the report in sequence by institution name or UNITID, sort the data file first using 'Utilities/Sort...". These reports reflect the current status of the file, so if changes are made to the data, you may want to re-create any reports that are important to you.   The editing process creates reports automatically so they do not need to be re-created for viewing or printing. The created reports can be

viewed and/or printed using the options in the 'View' or 'Print' menus. For more information press <F1> for HELP while in the desired option. Listed below are the options provided in the create summary reports.

4.5.1 Library Listing

This is a state listing of all of the academic libraries with UNITIDs and institution names contained on the data file. Closed libraries are marked with an asterisk.

4.5.2 Closed Libraries Listing

This is a listing of all the libraries marked as closed on the file.

4.5.3 Summary Report of Selected Items

This is a listing of selected items such as total FTE, total operating expenditures, total volumes held, etc. from questionnaires on the file.

4.6 View

This option allows viewing of any previously created reports. Select the report to be viewed from the listed options by typing the option number or highlighting the option then pressing <Enter>.

When reports are created, IDEALS automatically invokes the View program and displays the report. Press <Esc> to exit from View and return to the main menu. <F1> shows all the options available with VIEW. After pressing <F1> to see the options available from VIEW, press <ESC> to remove the help screen, then press the desired option. To print a selected group of lines or pages, press 'P'. You will be asked to position to the first line to be printed. Do so, and press <ENTER>. Then position to the last line and press <ENTER>. You can print directly to a printer or to a file. If you choose the latter, you are asked to name the file. You can either print that file outside of the IDEALS software, import it into a word processing package, or use it in any other software package acceptable for an ASCII text file.

4.7 Print

The print option allows printing of any reports previously created. Be sure you are connected to a printer. If you want to print only selected lines or pages of a report, use the 'View' option then "P" to indicate the first and last lines to print (see above). IDEALS assumes you are linked to a HP LASER printer. If you are using a dot matrix printer, you'll need to make a change to IDEALS. Exit from the menus and go to the DOS prompt. Make sure you are in the IDEALS directory. Use any text editor to edit the file DMENU.BAT. The DOS text editor will do. Change the line SET PRINT=HP to SET PRINT=D. Then exit from the editor. If you are using a printer other than LPT1, use a text editor to change the two files HPPRINT.BAT and DOTREP.BAT. Change LPT1 to LPT2 or LPT3.

You may also have problems printing depending on how your print driver is installed. If you have problems, you may also print any of the files using a word processing package in Windows. For help, please call or E-mail one of the contacts at the Census Bureau.

4.8 Prepare file for Census

The 'Prepare file for Census' option converts the data file to a flat ASCII file, one record per questionnaire, in the format described in Appendix B. The file will be named 98ALxx.txt and placed in the folder where the IDEALS software was installed. After running the option, either copy the file to diskette and mail it to the Census Bureau, or return to the Census Bureau Web site (see Using the Internet to Obtain IDEALS Software). You may FTP your file through this Web site. Alternatively, you may send your file as an email attachment to aclib@census.gov.

If your file is extremely large in size and you are copying to a diskette with a small capacity, you may need to zip the file prior to copying it to diskette, but this is unlikely. The compression feature is not part of the IDEALS software. Call the Census Bureau if you need assistance.

4.9 Utilities

The Utility programs offer assistance with calculating totals, creating copies of forms, fixing decimal problems after importing, sorting the data file, importing a single library, and exporting the data file.

4.9.1 Calculate Totals

This option allows you to calculate totals for data items that have details adding to totals. You should only use 'calculate totals' if all of the detail data is reported completely and correctly (none of the detail data is missing or unavailable).

4.9.2 Create Copies of Your Forms

This options creates a print file that resembles the Academic Library forms. Use this option if you want to keep a copy of each form for your records. If you need a printed copy, use the 'Print' option after you create the form copies. There will be several pages per library which could come to a considerable amount of paper, depending on the number of libraries in your file. The print file is actually a text file and need not be printed

at all. The filename is ALLFORMS.RPT, and you can copy to another directory, import it into a word processing package, etc. If you need printed copies of the forms, you may want to delay printing until you have made all the intended changes to your data. If you want to keep a copy of your final file, see above under 'Copy Data to Diskette' section.

Note: On these forms, the slash character (/) indicates a blank character.

4.9.3 Fix Decimal Problems

This option assists with correcting decimal formatting problems after importing. It will fix the following types of problems. The first is files containing an explicit decimal point instead of implied decimals. For example, if numeric fields in your data file are in the format 12.756, this program will convert them to 000012 if the field should contain an integer value, and 0001276 if the field should have two implied decimals, as with the FTE fields. The second is files where field(s) that should have two implied decimal places (again, the FTE fields) actually contain integer values. The program will add an implied decimal. For example, if "Total FTE staff" (a field that requires two implied decimal places) contains 002453, this program will change the field to 024530. The third is those files that may contain both explicit decimals and integer values in the implied decimal fields. For example, "Total FTE staff" might contain 0123.56 for one library, and 002456 for another. This program will change the first value to 012356 and the second value to 024560.

For integer fields, like 'Volumes', if the imported value is 56789.00, this utility removes the explicit decimal, making the field 0000056789.

These situations often arise when exporting from a spreadsheet or database package. <u>This utility should not be run unless needed, and it usually does not need to be run more than once against any file</u>. Running if not needed will inflate the implied decimal fields tenfold. Running it twice against the same file will inflate the fields 100 fold.

4.9.4 Sort by Institution Name

This utility will allow the data file to be sorted alphabetically by name after the ACLIB.BCH file has been created either through importing of a external file or through IDEALS data entry software.   Initialization of the data file for direct data entry will automatically sort the data file by institution name.

4.9.5 Sort by UNITID

This utility will allow the data file to be sorted in ascending order by UNITID after the ACLIB.BCH file has been created either through importing of an external file or through IDEALS data entry software.

4.9.6 Import a Single Library

Contact the Census Bureau for further information.

4.9.7 Export as comma delimited file

The "current" data file is the data file called ACLIB.BCH. It is a text file, with 8 records (parts) per form, A-G and R. The '**Export as comma delimited file**' option converts this file to a comma delimited ASCII file, named ACLIB.PRN, one record per library. If you want to send a diskette to the Census Bureau use this option, and also if you plan to send your data file over the Internet or FTP. To save your comma delimited data file to the IDEALS directory on the local hard drive, select this menu option.

If your file is extremely large in size and you are copying to a diskette with a small capacity, you may need to zip the file prior to copying it to diskette, but this is unlikely. The compression feature is not part of the IDEALS software. Call the Census Bureau if you need assistance.

4.9.8 Export as database (.dbf) file

The "current" data file is the data file called ACLIB.BCH. It is a text file, with 8 records (parts) per form, A-G and R. The '**Export as database (.dbf) file**' option converts this file to a DBF format database file, one record per library. If you want to send a diskette to the Census Bureau use this option, and also if you plan to send your data file over the Internet or FTP.

To save your DBF format database file to the IDEALS directory on the local hard drive, select this menu option. IDEALS will then direct you to key a name that includes your state's abbreviation, as 98 ALxx, where xx is the two letter state abbreviation.

If your file is extremely large in size and you are copying to a diskette with a small capacity, you may need to zip the file prior to copying it to diskette, but this is unlikely. The compression feature is not part of the IDEALS software. Call the Census Bureau if you need assistance.

5 SUBMITTING YOUR DATA

Select '**Prepare file for Census**' which converts the file to the format described in Appendix B. You can send your data over the Internet either as an e-mail attachment or via FTP. See '**Prepare file for Census**'. Another method is to send the file as an e-mail attachment to

aclib@census.gov

In the subject line of your message, please indicate your state, that the message is for the Academic Libraries project, and that a file is being sent. For example, *"Academic Library submission from California - file attached."*

If you mail diskettes, mail by **January 31, 1999** to one of the following addresses (which one depends upon the method being used):

Courier: **Bureau of the Census
ATTN: Pat Garner
8905 Presidential Pkwy.
GOVS, Room 508, WPII
Upper Marlboro, MD 20772**

Regular mail: **Bureau of the Census
ATTN: Pat Garner
GOVS, Room 508, WPII
Washington, DC 20233-6800**

APPENDIX A — TROUBLESHOOTING

Problem: The program does not run properly after installation.

Solution: 1. Be sure that you are using an IBM or compatible Personal Computer,
                    DOS 5.0 or above, and 4.0 Megabyte (MB) of free disk space. Note
                    that IDEALS can be installed on a local area network, but cannot be
                    accessed by multiple users.
                2. Be sure that you type "IDEALS" from the IDEALS directory, i.e. type "CD
                    \IDEALS98" <Enter> first.

                3. Be sure there are at least 25 file handles available, i. e. FILES = 25 and
                    BUFFERS=20 should be in your CONFIG.SYS.

Problem: My screen display is difficult to read.

Solution: Try adjusting your CRT or monitor's brightness, contrast and other video
                controls, so that everything appears correctly and the display is easy to
                read. Some monochrome monitors do not display IDEALS correctly. Call
                or E-mail Census for details.

Problem: I can't get the software to install on the correct computer drive.

Solution: Check to be sure you have selected the correct drive to install the software
                on. If you are using Windows 95 and have two hard drives (i.e., hard drive
                and CD-ROM drive) available for installation of IDEALS, there might be
                some confusion as to which drive letter is highlighted for selection during
                the installation process. The highlighted bar has dark letters on a light
                background. In Windows 3.1 and in DOS without Windows, the highlight
                bar blinks, so there is no confusion as to which one to select.

Problem: I can't import my ASCII file at all or without many errors.

Solution: The import ASCII flat file **must** conform to strict data record and data field
                requirements as specified in Appendix B. Check your file for consistency
                with these requirements.

Problem: My imported data is different or changed after the Lotus 1-2-3 export
                process.

Solution: Remove all of the following from your **original** Lotus 1-2-3 spreadsheet:

    1.   Macros
    2.   Titles, headers, footers, etc.

3. Labels on numeric data (e.g. use 514, not '514 or "514)

Problem: I can't change a particular data field.

Solution: Be sure the cursor is positioned on the field you want to change. Try using the Delete key to delete the current entry, then key the new entry.

Problem: I have an institution reporting as a shared library, how do I report them?

Solution: The shared library should mark the fields for questions a-d on page 1 of the questionnaire and fill in the information for any other libraries that share expenses with them in the fields for Part III of page 4 on the questionnaire. Do NOT report the same data for all libraries. Report the data on one form only. On the remaining shared library forms, enter the reporting library's UNITID in REMARKS with a comment such as "shared library reported on UNITID 111121", and leave the rest of the form blank.

Problem: How do I tell if I need to run the 'Fix Decimal Problems' utility program on my import file?

Solution: Import the file, then go to 'Key/Correct/Review Data'. Spot-check the data on the screens, comparing to the original file. If the FTE's in part B look too small by a factor of 10, 100, 1000, etc., or extra decimal points are shown, then you need to 'Fix Decimal Problems'. Go to the 'Utilities" option and run the utility once. Spot check the data again. If the numbers still look too small by a factor of 10, 100, etc, run the utility again.

Problem: I still can't get things working right!

Solution: For technical assistance, call or E-mail Kathy Chamberlain at the Census Bureau, aclib@census.gov or 1-301-457-1590; for general information contact Pat Garner on 1-800-451-6235 or Jeff Williams at NCES, (202) 219-1362.

APPENDIX B — IDEALS IMPORT DATA FILE SPECIFICATIONS

For data item information refer to the survey form in Appendix G. (The Internet and diskette copy of the manual do not contain Appendix G. Refer to the hard copy or contact the Census Bureau to have a copy of the form faxed to you). For definitions of data elements go to the glossary or to the instruction portion of the survey form. This layout refers to fixed width text files. Your data element names need not match, but the size and sequence or order of the data elements must be by these specifications.

Data Item	Data Type	Position	Length	Values/Comments	Field #
UNITID	N	1-6	6	Code assigned by the Census Bureau and shown on the cover of the survey form, below the barcode	1
CLOSED	A	7	1	This item is not on the form. closed = Y open= blank	2
RESPN	A	8-37	30	Respondent's name; do not key titles i.e. Mr or Dr	3
RSTELE	N	38-47	10	Respondent's telephone number; key only numbers with no spaces. (do not key hyphens or parenthesis)	4
RSTELEX	N	48-51	4	Respondent's telephone extension	5
REMAIL	A	52-101	50	Respondent's e-mail address	6
RFAX	N	102-111	10	Respondent's FAX number; do not key hyphens or parenthesis	7
COLLECTION	A	112	1	Organized collection Y = yes, N = No, or blank	8
TRAINSTAFF	A	113	1	Trained staff Y = yes, N = No, or blank	9
STAFSCHED	A	114	1	Established schedule Y = yes, N = No, or blank	10
PHYSFACIL	A	115	1	Physical facilities Y = yes, N = No, or blank	11
PARENT	A	116	1	Refers to one library reporting for self and others; valid entries are: Y = yes, N = No, or blank	12
CHILD	A	117	1	Refers to a library that is reported by another; valid entries are: Y = Yes, N = No, or blank	13

Data Item	Data Type	Position	Length	Values/Comments	Field #
CID1	N	118-123	6	UNITID of CHILD being reported by Parent	14
CID2	N	124-129	6	UNITID of CHILD being reported by Parent	15
CID3	N	130-135	6	UNITID of CHILD being reported by Parent	16
CID4	N	136-141	6	UNITID of CHILD being reported by Parent	17
CID5	N	142-147	6	UNITID of CHILD being reported by Parent	18
CID6	N	148-153	6	UNITID of CHILD being reported by Parent	19
CID7	N	154-159	6	UNITID of CHILD being reported by Parent	20
CID8	N	160-165	6	UNITID of CHILD being reported by Parent	21
CID9	N	166-171	6	UNITID of CHILD being reported by Parent	22
CID10	N	172-177	6	UNITID of CHILD being reported by Parent	23
PUNITID	N	178-183	6	Parent's UNITID - library that is reporting for the child	24
SHAREID1	N	184-189	6	UNITID of shared library	25
SHAREIN1	A	190-239	50	Name of institution which library is shared with	26
SHAREID2	N	240-245	6	UNITID of shared library	27
SHAREIN2	A	246-295	50	Name of institution which library is shared with	28
SHAREID3	N	296-301	6	UNITID of shared library	29
SHAREIN3	A	302-351	50	Name of institution which library is shared with	30
A01	N	352-357	6		31
B02	N	358-363	6	at 2 decimal places	32
B03	N	364-369	6	at 2 decimal places	33
B04	N	370-375	6	at 2 decimal places	34
B05	N	376-381	6	at 2 decimal places	35

Data Item	Data Type	Position	Length	Values/Comments	Field #
B06	N	382-387	6	at 2 decimal places	36
B07	N	388-393	6	at 2 decimal places	37
B08	N	394-399	6	at 2 decimal places	38
C09	N	400-409	10	enter whole dollar amounts	39
C10	N	410-419	10	enter whole dollar amounts	40
C11	N	420-429	10	enter whole dollar amounts	41
C12	N	430-439	10	enter whole dollar amounts	42
C13	N	440-449	10	enter whole dollar amounts	43
C14	N	450-459	10	enter whole dollar amounts	44
C15	N	460-469	10	enter whole dollar amounts	45
C16	N	470-479	10	enter whole dollar amounts	46
C17	N	480-489	10	enter whole dollar amounts	47
C18	N	490-499	10	enter whole dollar amounts	48
C19	N	500-509	10	enter whole dollar amounts	49
C20	N	510-519	10	enter whole dollar amounts	50
C21	N	520-529	10	enter whole dollar amounts	51
C22	N	530-539	10	enter whole dollar amounts	52
C23	N	540-549	10	enter whole dollar amounts	53
C24	N	550-559	10	enter whole dollar amounts	54
C25	N	560-569	10	enter whole dollar amounts	55
D261	N	570-579	10	Line and column number	56
D262	N	580-589	10	Line and column number	57
D271	N	590-599	10	Line and column number	58
D272	N	600-609	10	Line and column number	59
D281	N	610-619	10	Line and column number	60
D282	N	620-629	10	Line and column number	61
D291	N	630-639	10	Line and column number	62
D292	N	640-649	10	Line and column number	63
D301	N	650-659	10	Line and column number	64

Data Item	Data Type	Position	Length	Values/Comments	Field #
D302	N	660-669	10	Line and column number	65
D311	N	670-679	10	Line and column number	66
D312	N	680-689	10	Line and column number	67
D321	N	690-699	10	Line and column number	68
D322	N	700-709	10	Line and column number	69
E33	N	710-719	10		70
E34	N	720-729	10		71
E35	N	730-739	10		72
E36	N	740-749	10		73
E37	N	750-759	10		74
E38	N	760-769	10		75
E39	N	770-779	10		76
E40	N	780-789	10		77
E41	N	790-799	10		78
E42	N	800-809	10		79
F43	N	810-819	10		80
F44	N	820-829	10		81
F45	N	830-839	10		82
G461	A	840	1	Line and column number	83
G462	A	841	1	Line and column number	84
G463	A	842	1	Line and column number	85
G464	A	843	1	Line and column number	86
G471	A	844	1	Line and column number	87
G472	A	845	1	Line and column number	88
G473	A	846	1	Line and column number	89
G474	A	847	1	Line and column number	90
G481	A	848	1	Line and column number	91
G482	A	849	1	Line and column number	92
G483	A	850	1	Line and column number	93

Data Item	Data Type	Position	Length	Values/Comments	Field #
G484	A	851	1	Line and column number	94
G491	A	852	1	Line and column number	95
G492	A	853	1	Line and column number	96
G493	A	854	1	Line and column number	97
G494	A	855	1	Line and column number	98
G501	A	856	1	Line and column number	99
G502	A	857	1	Line and column number	100
G503	A	858	1	Line and column number	101
G504	A	859	1	Line and column number	102
G511	A	860	1	Line and column number	103
G512	A	861	1	Line and column number	104
G513	A	862	1	Line and column number	105
G514	A	863	1	Line and column number	106
G521	A	864	1	Line and column number	107
G522	A	865	1	Line and column number	108
G523	A	866	1	Line and column number	109
G524	A	867	1	Line and column number	110
G531	A	868	1	Line and column number	111
G532	A	869	1	Line and column number	112
G533	A	870	1	Line and column number	113
G534	A	871	1	Line and column number	114
G541	A	872	1	Line and column number	115
G542	A	873	1	Line and column number	116
G543	A	874	1	Line and column number	117
G544	A	875	1	Line and column number	118
G551	A	876	1	Line and column number	119
G552	A	877	1	Line and column number	120
G553	A	878	1	Line and column number	121
G554	A	879	1	Line and column number	122

Data Item	Data Type	Position	Length	Values/Comments	Field #
G561	A	880	1	Line and column number	123
G562	A	881	1	Line and column number	124
G563	A	882	1	Line and column number	125
G564	A	883	1	Line and column number	126
G571	A	884	1	Line and column number	127
G572	A	885	1	Line and column number	128
G573	A	886	1	Line and column number	129
G574	A	887	1	Line and column number	130
G581	A	888	1	Line and column number	131
G582	A	889	1	Line and column number	132
G583	A	890	1	Line and column number	133
G584	A	891	1	Line and column number	134
G59	A	892	1		135
G60	A	893	1		136
G61	A	894	1		137
G62	A	895	1		138
G62X	A	896	1		139
REMARKS	A	897-1136	240		140

For comma/quote delimited files, the size of the data elements is not a factor, but the **sequence** or **order** of the data elements **must** be per these specifications.

APPENDIX C — ERROR AND WARNING MESSAGES

The messages are arranged by part, i.e., messages concerning the information on the cover of the survey form will be grouped under the "cover and combined page" part. Both the form edit listings and CY/PY edit listings are shown under the part they relate to. Appendix G is not part of the Internet or the diskette version of this manual, please refer to the hard paper copy.

Part: Cover and Combined Page

1. Invalid UNITID
   The Census Bureau assigns each institution with a numeric code between 100000 and 999999. On each form, the UNITID code is imprinted below the barcode on the cover. DO NOT create your own. For valid UNITIDs call the Census Bureau.

2. CLOSED library should be 'Y' or blank
   This is not on the form. The closed option is provided for use to indicate that a library is no longer in operation. If a library has closed, mark 'CLOSED' with a 'Y'; remember to include any pertinent information such as date of closing in the remarks section.

3. PARENT reporting, but CHILD UNITIDs missing
   If item e on page 1 is marked 'yes', answer the Part I question on the combined page 4 "The institution named on page 1 of this survey is including Academic Libraries Survey data for other institutions/branch campuses with separate UNITIDs". The UNITIDs of the libraries being reported should be listed in the CHILD UNITIDs field when the reporting library includes data for another library. On the file layout the mnemonic for the CHILD's UNITID CID1...CID10.

4. PARENT reporting, but CHILD UNITIDs invalid
   UNITIDs should be numeric and a Census Bureau code. See 'Invalid UNITID' message for more detail.

5. PARENT should be 'Y', 'N', or blank
   Question e (PARENT) on page 1 should be answered 'Y' for yes, 'N' for n , or blank. 'Yes' to the Parent question would mean the current UNITID is reporting for more than one library, and the CHILD question should have a response of 'no' and the Shared Library question (page4, Part III) should be blank. The PARENT UNITID should be reported.

6. CHILD should be 'Y', 'N', or blank
   Question f (CHILD) on page 1 should be answered 'Y' for yes, 'N' for no, or blank. 'Yes' to the Child question would mean the current UNITID is being reported by another institution, and the PARENT question should have a response of 'no'. The CHILD UNITID's should be reported and the Shared Library question (page 4, Part III) should be blank.

7. PARENT/CHILD and Combined page entries are not in agreement
   Page 1 items e and f PARENT/CHILD responses should agree with the answers shown on the combined page 4, Parts I and II.

Part: A, Branches and B, Staff

1.   <u>Part A data should be numeric or blank</u>
     Data reported in line 01 should be numeric. If this fails, check for spaces or alphabetic characters.

2.   <u>Number of branches should not exceed 30</u>
     Line A01 should list the number of branch and independent libraries. Do NOT include the main library. Branch and independent libraries are defined as auxiliary library service outlets with quarters separate from the central library which have a basic collection of books and other material, regular staffing, and hours of operation. Branch libraries can be administered by the central library or some other administrative unit within the school.

3.   <u>Part B data should be numeric or blank</u>
     Data reported in lines B02 through B08 must be numeric with implied decimals. Blank entries are allowed but not encouraged.

4.   <u>B08 > 1000.00; check for missing decimals</u>
     The total FTE shown in B08 should not exceed 1000. If you have imported data into the IDEALS software you may be missing the implied decimals. The error reports do not display the decimal points. Compare the IDEALS data to the file that was being imported. If decimals are a problem, go to the Utilities option and select the option for fixing decimals . For more information on 'fixing decimals' go to the "Fix Decimal Problems" section in the manual.

5.   <u>B04 should equal sum of B02 + B03</u>
     The total reported in B04 should match the generated total of the parts. The edit listings will show the reported information and the generated total. The edit reports do not display the implied decimal point.

6.   <u>B08 should equal sum of B04+B05+B06+B07</u>
     The total reported in B08 should match the generated total of the parts. The edit listings will show the reported information and the generated total. The edit reports do not display the implied decimal point.

7.   <u>CY/PY difference in B08 > 30</u>
     This edit is part of the CY/PY edit reports. The absolute difference between the CY data and PY data should be less than 30 FTE's.

Part C, Expenditures

1. <u>Part C data should be numeric or blank</u>
    Data reported lines C09 through C25 should be numeric. If this fails, check for spaces or alphabetic characters.

2. <u>CLOSED library should have no expenditures</u>
    This edit compares the response in the data element "Closed library" to the response in line C24, total expenditures. If the data element 'CLOSED' has been marked with "yes" then the library should not have any expenses. To correct, blank out CLOSED or blank out any form data if the library is closed. If a library was open part of the year, do not mark as closed for this survey year, add a note in the remarks section with information on the closed school.

3. <u>C24 should not exceed $50,000,000</u>
    The total operating expenditures should not be larger than $50,000,000 according to limits set by NCES. Verify the entries in lines C9-23.

4. <u>C24 reported value does not match computed total</u>
    The sum of lines C9 through C23 does not agree with the reported total in line C24. The edit listing will show the reported total and generated total.

5. <u>CY/PY difference in C24 > $500,000</u>
    This edit is part of the CY/PY edit listings. The absolute difference between the CY data and the PY data should be less than $500,000 based on NCES limitations.

Part D, Library Collections

1. <u>Part D data should be numeric or blank</u>
    Data reported in lines D26 through D32, columns 1 and 2 should be numeric. If this fails, check for spaces or alphabetic characters.

2. <u>Data in C12, data required in D26-1, D27-1, or D28-1</u>
    This edit compares monies spent on books, etc. to the acquisitions column of part D (column 1). If C12 contains information then additions to the inventory should be shown in column 1 of part D for lines 26, 27, or 28. Column 1 data represent the amount purchased and do not reflect a balance between brand new items and items purchased to replace worn out editions.

3.   Data in C13, data required in D29-1
This edit compares monies spent on electronic books, etc. to the acquisitions column of part D (column 1). If C13 contains information then additions to the electronic inventory should be shown in column 1 of part D for line 29.

4.   Data in C14, data required in D30-2
When data is reported in C14 for current serials purchases, a comparison to Part D column 2 is made for line 30. Basically, this edit checks the relationship between money spent on current serials and whether a collection is maintained at the library.

5.   Data in C15, data required in D31-2
When data is reported in C15 for electronic current serials purchases, a comparison to Part D column 2 is made for line 31. Basically, this edit checks the relationship between money spent on electronic current serials and whether an electronic collection is maintained at the library.

6.   Data in C16, data required in D32-1
This edit compares monies spent for audiovisual materials to the audiovisual materials category shown in part d. The edit looks for an entry in line 32, column 1.

7.   Data in Part D column 1 should not be > column 2
Column 1 data reflects additions to the collection , while column 2 represents the total contained in that collection. The data can be equal in both columns, but column 1 should never be larger than column 2.

Part E. Library Services

1.   Data in Part E should be numeric or blank
All data entries in lines E33 through E42 should be numeric. If this fails, check for spaces or alphabetic characters.

2.   Reported E35 does not match generated sum of E33 and E34
The total reported in E35 does not match the sum of E33 + E34. The edit listing will display the reported and the generated amounts.

3.   Reported E38 does not match generated sum of E36 and E37
The total reported in E38 does not match the sum of E36 + E37. The edit listing will display the reported and the generated amounts.

4. Data in E41 cannot be greater than E42

The number of presentations (E41) should be lower than the number attending the presentations (E42). For example, 1 presentation (E41) could have persons attending (E42).

Part F Library Services in a Typical Week

1. Data in Part F should be numeric

All data entries in lines F43 through F45 should be numeric. If this fails, check for spaces or alphabetic characters.

2. Hours of operation per week exceed 168

This edit refers to line F43. The total number of hours any library can possibly be open is 168 (24 hours per day x 7 days = 168 hours). If branch campuses or other institutions are being reported on one report, do NOT combine the hours; take the hours of the library who is open the most. For example, library A is open 75 hours in a week, while library B is open 100 hours per week. Input 100 hours into F43 because it covers the number of typical hours of operation for both libraries.

Part G, Electronic Services

1. Valid entries in Part G are 'Y' or 'N' or Blank

Part G lines G46 through G62 is composed of questions requiring yes/no responses. If an answer is unavailable, leave it blank.

APPENDIX D — SAMPLE ERROR LISTINGS

The following are sample error listings generated from the IDEALS program for the form edit reports.

A. Form Error Reports

```
Page  1  10/21/98  19:20:17                SUMMARY REPORT -- Dictionary: ACLIB
                   IMPS Version 3.1
      Input: ACLIB.BCH                 Program: EDFORMB                    Output: NUL
```

Area: ALL

Count	Percent	Message	Denom	Line Number
-		Invalid UNITID		
-		CLOSED library. Filter questions a,b,c,d, should not be (Y)es		
-		CLOSED library should be 'Y' or blank		
-		PARENT reporting, but CHILD UNITIDs missing		
-		PARENT reporting but CHILD UNITIDs invalid		
-		PARENT should be 'Y', 'N', or blank		
1		CHILD reporting but no PARENT UNITID		
-		CHILD should be 'Y', 'N', or blank		
-		PARENT and CHILD should not both be (Y)ES		
1		CY/PY difference in FTE (B08) exceeds 30		
-		Number of branches should be numeric and not exceed 30		
3		Part B data should be numeric or blank; no explicit decimals		
1		B08 > 1000.00; check for missing decimals		
1		B04 should equal sum of B02+B03		
1		B08 should equal sum of B04+B05+B06+B07		
-		CLOSED library should have no expenditures		
-		CY/PY difference in Expenditures (C24) > $500,000		
-		C24 should not exceed $50,000,000		
-		Part C data should be numeric or blank		
-		C24 reported value does not match computed total		

-           Part D data should be numeric or blank

1   Data in C12, data required in D26,D27 or D28 (column 1)

-           Data in C13, data required in D29 (column 1)

1   Data in C14, data required in in D30 (column 2)

-           Data in C15, data required in D31 (column 2)

-           Data in C16, data required in in D32 (column 1)

-           Data in Part D column 1 should not be > column 2

-           Data in Part E should be numeric or blank
-           Data in E41 should not be greater than E42
-           Reported E35 does not match generated sum of E33 and E34

-           Reported E38 does not match generated sum of E36 and E37

1   Data in Part F should be numeric
-           Hours of operation per week exceeds 168

-           Valid entries in Part G are 'Y' or 'N' or blank

QUESTIONNAIRE AND RECORD SUMMARY

Record Type	Input Quests	Input Records	Invalid Records	Output Quests	Output Records	Out - In Change	Write Records
PARTA		4		-	-		
PARTB		4		-	-		
PARTC		4		-	-		
PARTD		4		-	-		
PARTE		4		-	-		
PARTF		4		-	-		
PARTG		4		-	-		
REMARKS		4		-	-		
Total	4	32	-	-	-	-	-

The summary report shows how many records failed each edit check. For example, one
library record did not have a correct total in B08. Any numbers in the far right column

under "line number" should be ignored. The "Questionnaire and Record Summary" shows the number of records on the file. If "Input Quests" is lower than "Input records", there are some records with the same UNITIDs. These may be duplicate records.

Questionnaire Id: 102580   Line
Number

PUNITID = //////   CHILD reporting but no PARENT UNITID

FTE98 = 0077   CY/PY difference in FTE (B08) exceeds 30

FTE96 = 0003
COMPUTED = 0000003300   B04 should equal sum of B02+B03
B04 = 004500
COMPUTED = 0000005600   B08 should equal sum of B04+B05+B06+B07
  B08 = 007700
C12H = 0000001479   Data in C12, data required in D26,D27 or D28 (column 1)

                              Data in Part F should be numeric

----

Questionnaire Id: 102669

B02 = 984509   Part B data should be numeric or blank; no explicit decimals

B03 = 490499
B05 = 485038
B06 = 485934
B07 = 094845
B06 = 485934   B08 > 1000.00; check for missing decimals

Questionnaire Id: 102845

B02 = //////   Part B data should be numeric or blank; no explicit decimals

B03 = //////
B05 = //////
B06 = //////
B07 = //////
C14H = 0000008796   Data in C14, data required in in D30 (column 2)

Questionnaire Id: 103440

B02 = //////   Part B data should be numeric or blank; no explicit decimals

B03 = //////
B05 = //////
B06 = //////
B07 = //////

QUESTIONNAIRE AND RECORD SUMMARY

Record Type	Input Quests	Input Records	Invalid Records	Output Quests	Output Records	Out - In Change	Write Records
PARTA		4		-	-		
PARTB		4		-	-		
PARTC		4		-	-		
PARTD		4		-	-		
PARTE		4		-	-		
PARTF		4		-	-		
PARTG		4		-	-		
REMARKS		4		-	-		
Total	4	32	-	-	-	-	-

The Questionnaire report shows which records failed the edits. The numbers after "Questionnaire Id:" identify the record. The error messages are below the "Questionnaire Id:" line. To the left of the messages are sometimes one or more data values that illustrate how the record failed the edit. In most cases, the labels on these values will be clear. In an example above, the library record with the UNITID 102845, has an error in C14 in relation to D30-2. If further explanation of the error messages is needed, refer to appendix C. Slashes (/) indicate blank characters, i.e., PUNITID = ////// has 6 blanks. Any numbers in the rightmost column refer to the edit program's source code, and should be ignored.

APPENDIX E — STATE ABBREVIATIONS

STATE ABBREVIATION	STATE NAME
AL	ALABAMA
AK	ALASKA
AZ	ARIZONA
AR	ARKANSAS
CA	CALIFORNIA
CO	COLORADO
CT	CONNECTICUT
DE	DELAWARE
DC	DISTRICT OF COLUMBIA
FL	FLORIDA
GA	GEORGIA
HI	HAWAII
ID	IDAHO
IL	ILLINOIS
IN	INDIANA
IA	IOWA
KS	KANSAS
KY	KENTUCKY
LA	LOUISIANA
ME	MAINE
MD	MARYLAND
MA	MASSACHUSETTS
MI	MICHIGAN
MN	MINNESOTA
MS	MISSISSIPPI
MO	MISSOURI
MT	MONTANA
NE	NEBRASKA
NV	NEVADA
NH	NEW HAMPSHIRE
NJ	NEW JERSEY
NM	NEW MEXICO
NY	NEW YORK
NC	NORTH CAROLINA
ND	NORTH DAKOTA
OH	OHIO
OK	OKLAHOMA
OR	OREGON
PA	PENNSYLVANIA
RI	RHODE ISLAND
SC	SOUTH CAROLINA
SD	SOUTH DAKOTA
TN	TENNESSEE
TX	TEXAS
UT	UTAH
VT	VERMONT
VA	VIRGINIA
WA	WASHINGTON
WV	WEST VIRGINIA
WI	WISCONSIN
WY	WYOMING

APPENDIX F — GLOSSARY OF TERMS

ACLIB.BCH   This is the file name for the current year data file. It is a text file, with 8 records (parts) per form, A-G and R.

ASCII   Acronym for "American Standard Code for Information Interchange". Pronounced "askee", this standard for data transmission assigns individual codes to represent each of a specific set of numerals, letters and special controls. ASCII files are also known as text files.

Backup   Copies of data and program files.

Batch   Refers to the data file for your state. Each state has one batch file for the Academic Library survey.

.BOP file   An index file that CENTRY requires. The user need not be concerned about creating or saving this file.

Child   A child is an institution that supplies data to another school who then reports for both institutions. The reporting institution is known as the parent.

Convert   The process of changing a data file from one format to another.

Cursor   A special character on the user's screen that indicates the next position at which a character will be entered or deleted.

Data Element   Specifically categorized part of a data record. Many data elements typically comprise a data record. A data element is usually the response to one question in the questionnaire.

Data Entry   The process of entering data into a computer or computer application.

Data Field   See Data Element.

Data File   A group of records with common descriptive attributes. In IDEALS the data file is the file containing the 1998 Academic Libraries data.

Database   An organization of data files containing information or reference material on a particular subject or subjects.

dBASE   Borland/Ashton-Tate's popular line of database application software.

Default	A value supplied by the computer system when no explicit value is received from the user.
Directory	The list of all files, which is itself a file, on a computer storage medium for the user's easy reference.
Disk Drive	Any flat, circular storage system capable of storing digital information.
DOS	An acronym for "Disk Operating System", the basic system software for running today's IBM and compatible computers. It utilizes disks for its secondary storage medium.
DOS Prompt	A symbol, often ending with a ">", that shows that DOS has been successfully loaded into RAM (booted), and that the computer will read and write data to the disk drive designated.
Drive A, B	The floppy disk drives in a computer system.
Drive C	Designation for the first logical or physical hard disk drive, if any.
Edit	To prepare or modify data for final publication.
File	A group of organized data (records) assembled for one particular purpose and considered as one unit and stored in permanent off-line storage, such as a disk drive, tape or disk.
File Compression	Via the use of archiving software, program and data files can be "compressed" or reduced in size, and thus take up less valuable disk space.
Hard Disk	A rigid magnetic disk storage system that provides faster access times, higher capacity and greater reliability than diskette systems.
Importing	To bring in data from an outside source. In the case of IDEALS, this can be an ASCII fixed format file, or a comma delimited file. Packages such as Lotus 1-2-3 and dBASE can export such formats.
IMPS	The underlying software for the IDEALS system. The Integrated Microcomputer Processing System (IMPS) was developed by the Census Bureau's International Programs Center, under the sponsorship of the U.S. Agency for International Development (USAID).
Library	An entity that provides all of the following: 1) An organized collection of printed or other materials, or a combination; 2) A staff trained to provide and interpret such materials; 3) An established schedule in which services of the staff are available to clientele; and 4) The

	physical facilities necessary to support such a collection, staff and schedule. This includes libraries that part of learning resource centers.
Megabyte (MB)	1,048,576 bytes, or 2^{20} bytes. The capacity of a personal computer's memory and hard disk are typically measured in megabytes.
Output	Any information produced by a computer from a given input.
Parent	An institution/library that reports for other library systems/campuses, i.e, Main campus reports for itself and the campus in another town. Both schools have a UNITID and operate under the same department.
Program	A sequence of instructions given to the computer to perform specific functions or tasks. Programs are also referred to as "software".
Record	A group of related fields of information treated as a unit for organizational purposes. A record is usually one of many within a particular data file.
Screen	This usually refers to the display on the monitor of the computer.
Scroll	To advance, or go back, a specified number of lines in a data file currently on the screen.
Self-extracting	A program that when executed expands from a compressed files into larger files. The compressed files cannot be used until expanded. Compression is done to save valuable disk space, save on time downloading files from Internet, and simplify installation procedures.
Shared library	A facility housing a library that is jointly administered by more than one educational institution or whose funds or operating expenditures have been received from more than one educational institution. Location is not a determining factor.
Software	Programs that tell the computer what operations to perform. Contrast with hardware.
UNITID	The mnemonic for the 'unit identification' code. The UNITIDs are assigned by NCES and the Census Bureau.
Window	An isolated portion of a screen that may be used to display information independently of the rest of the screen display.
WWW	World Wide Web page on the Internet.

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